

FIG. 1

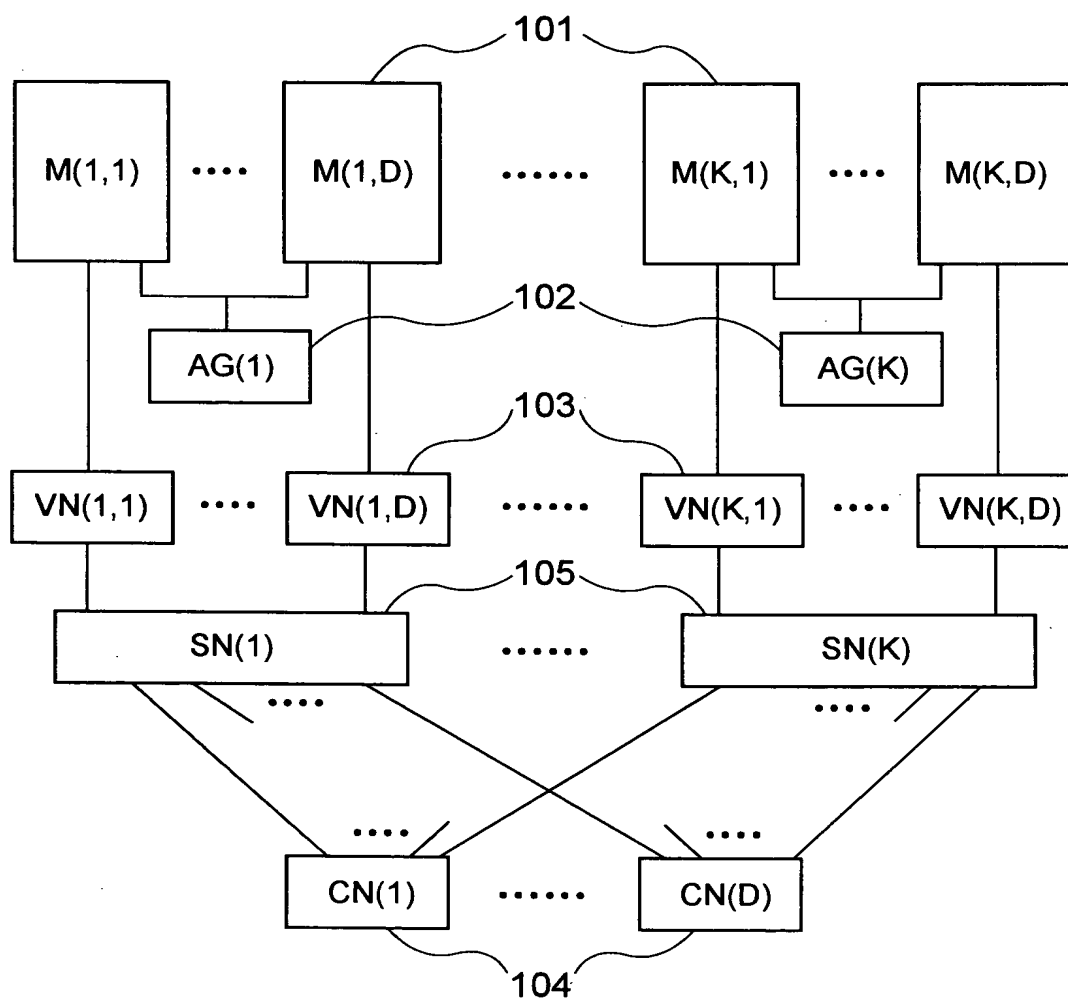


FIG. 2

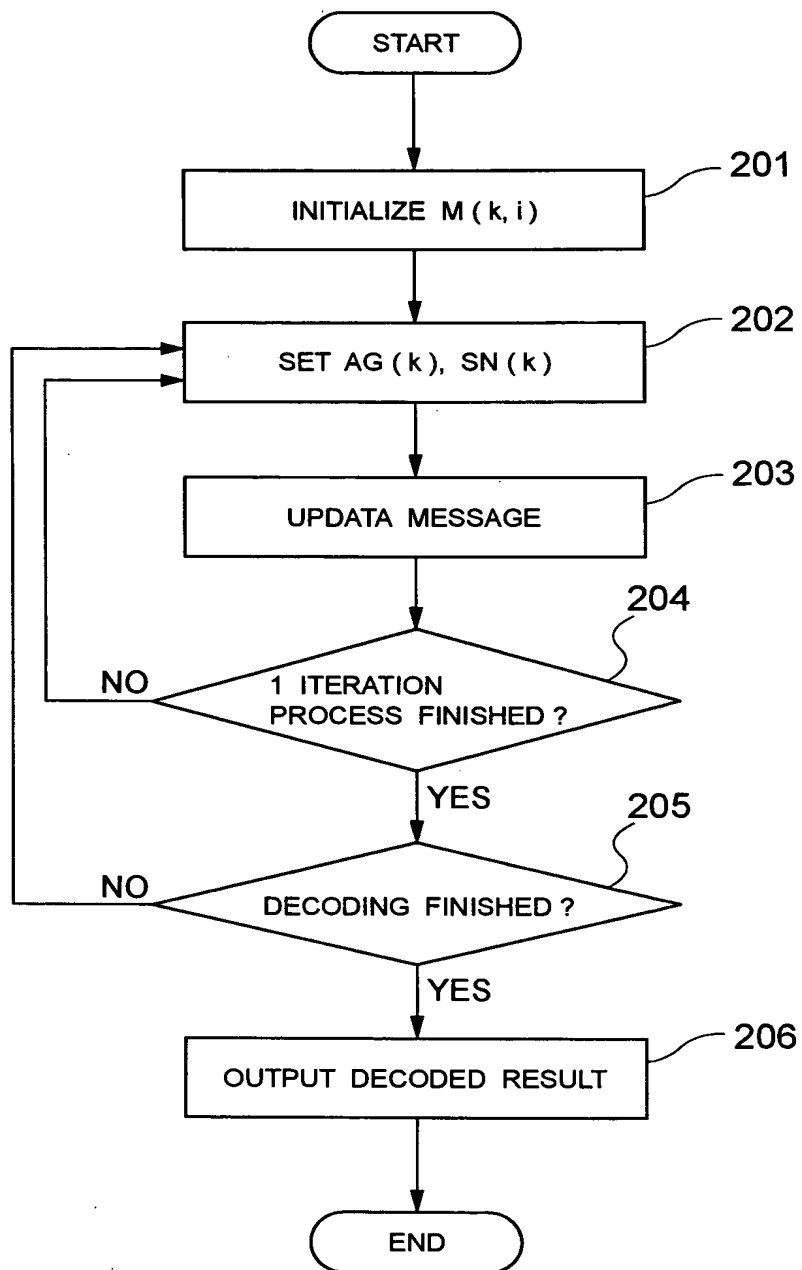
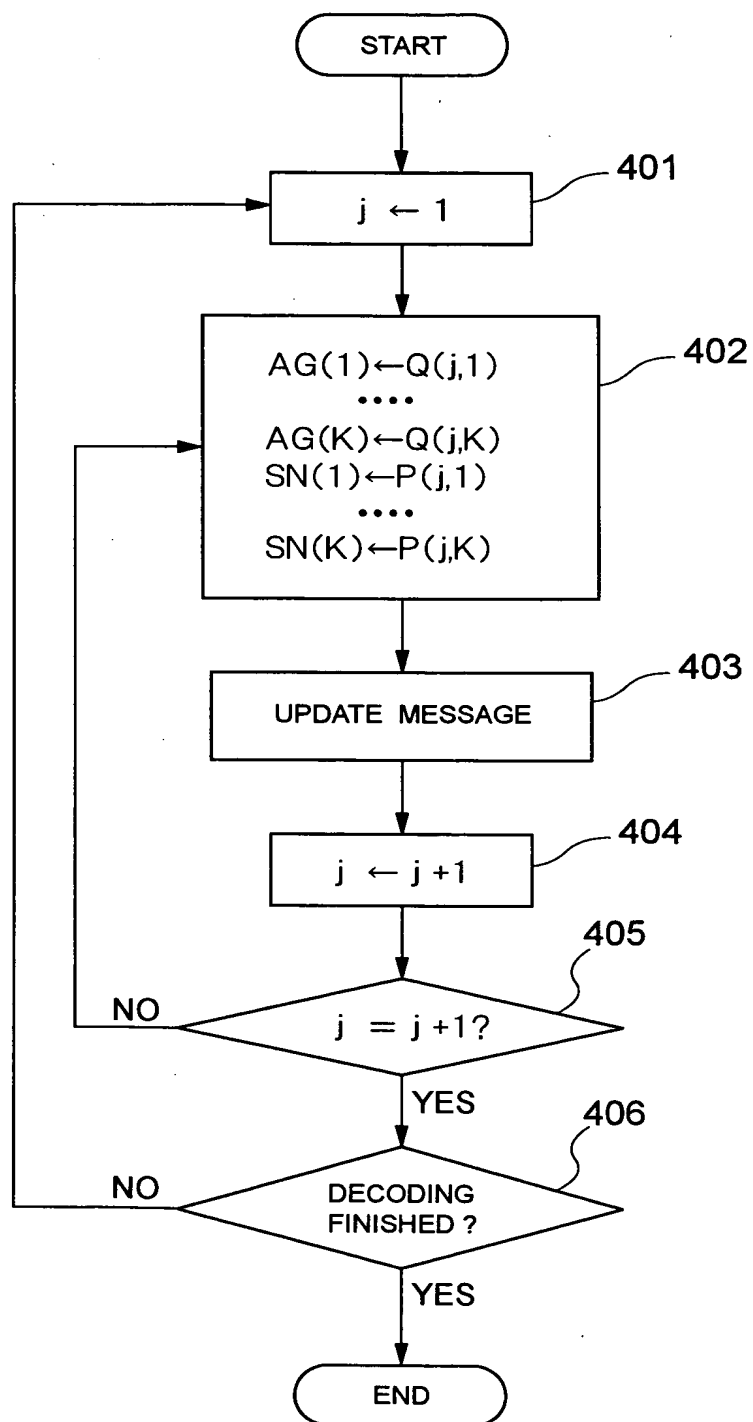


FIG. 3

$$H = \begin{pmatrix} R(1,1) & \cdots & R(1,K) \\ \cdots & \cdots & \cdots \\ R(J,1) & \cdots & R(J,K) \end{pmatrix} \quad 301$$
$$R(j,k) = Q(j,k) \otimes P(j,k) \quad 302$$

FIG. 4



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FIG. 5

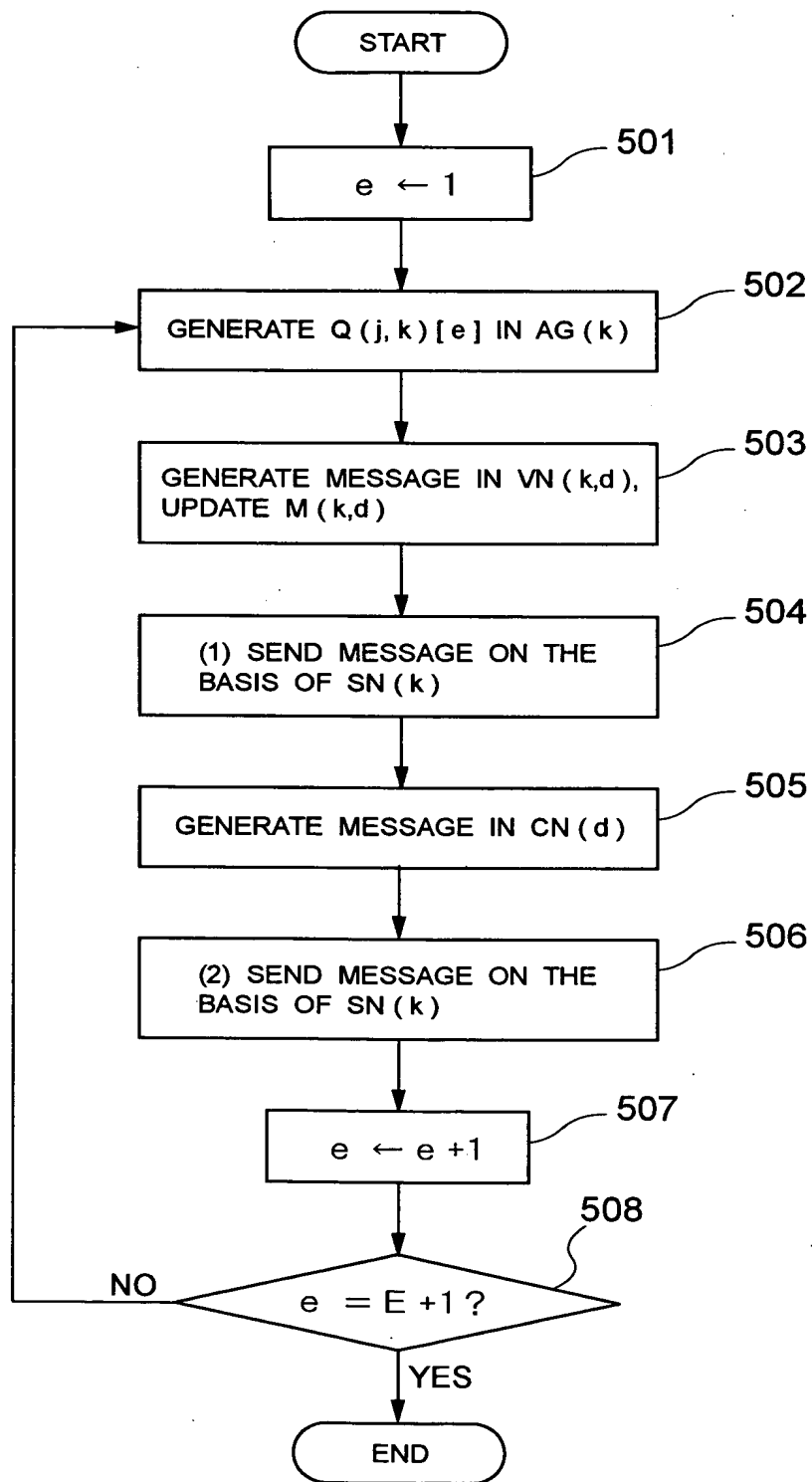
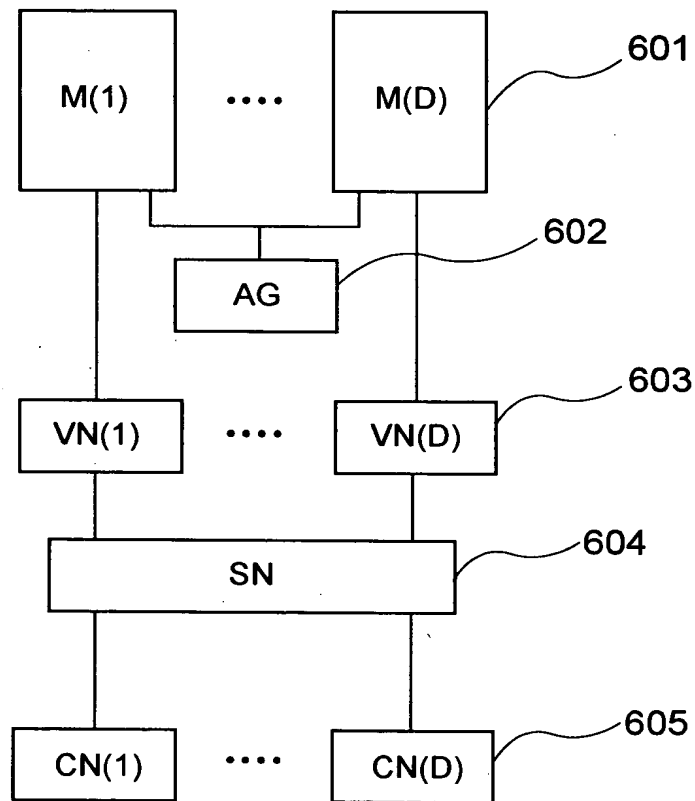


FIG. 6



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FIG. 7

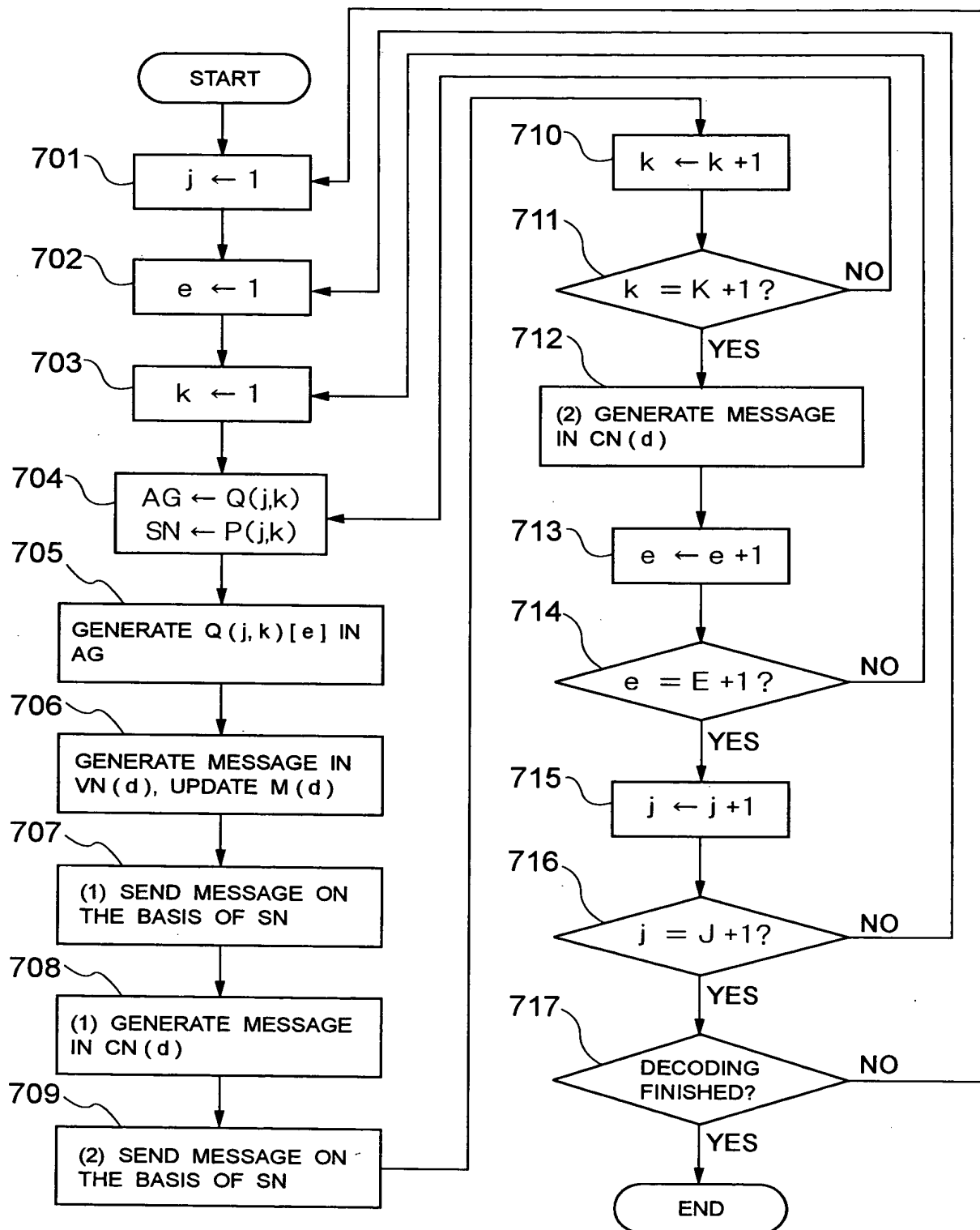
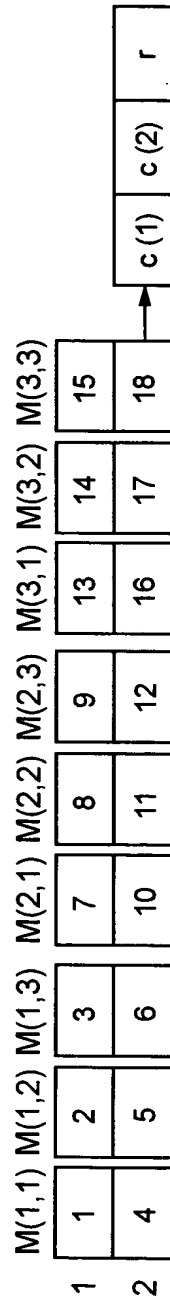






FIG. 10B

FIG. 10A



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FIG. 11

$c(1)$	$c(2)$	$c(3)$	$c(4)$	$r + c(1) + c(2) + c(3) + c(4)$
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FIG. 12

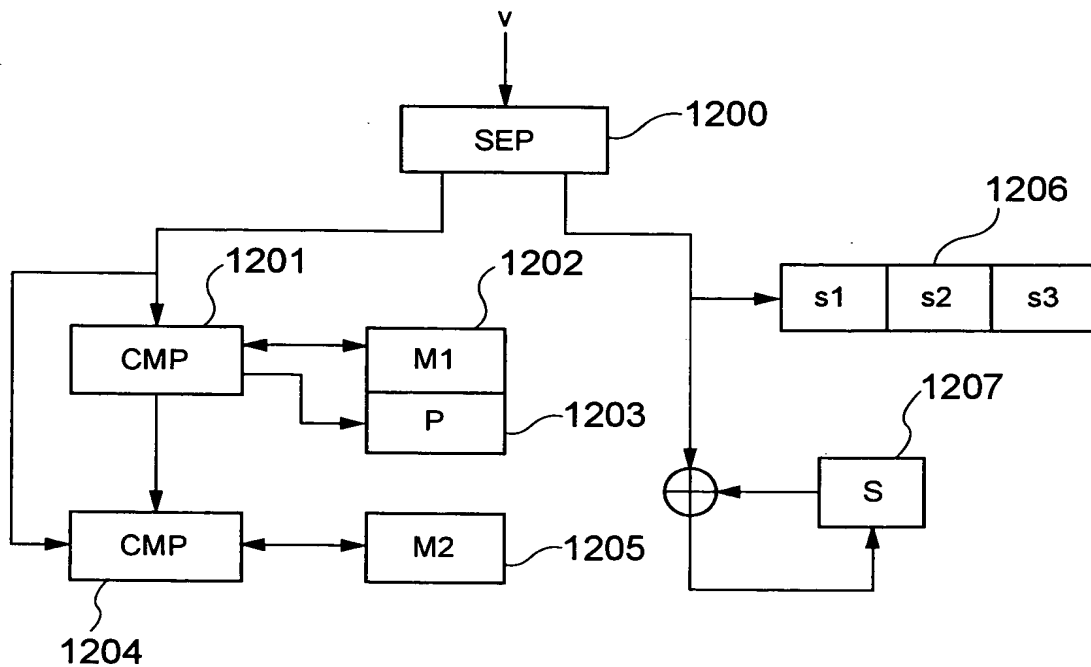


FIG. 13

$$\begin{pmatrix} P & P & 0 & 0 & 0 & 0 & P & P & P & P \\ P & P & P & P & P & 0 & 0 & 0 & 0 & P \\ P & P & P & P & 0 & P & 0 & 0 & P & 0 \\ P & P & P & 0 & P & P & 0 & P & 0 & 0 \\ P & P & 0 & P & P & P & P & 0 & 0 & 0 \end{pmatrix}$$

FIG. 14A

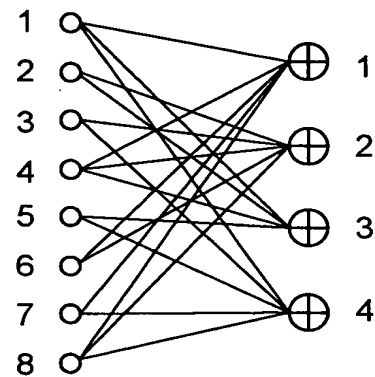
PRIOR ART

$$H = \begin{matrix} & \begin{matrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \end{matrix} \\ \begin{pmatrix} 1 & 0 & 0 & 1 & 0 & 1 & 1 & 1 \\ 0 & 1 & 1 & 1 & 0 & 1 & 0 & 1 \\ 1 & 1 & 0 & 1 & 1 & 1 & 0 & 0 \\ 1 & 0 & 1 & 0 & 1 & 0 & 1 & 1 \end{pmatrix} & \begin{matrix} 1 \\ 2 \\ 3 \\ 4 \end{matrix} \end{matrix}$$

PARITY CHECK MATRIX H

FIG. 14B

PRIOR ART



TANNER GRAPH G

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**FIG. 15**  
PRIOR ART

